



Colloquium 20-02

- Speaker:** Prof. Dawn Sumner
Earth & Planetary Sciences, University of California Davis, W.M. Keck Center for Active Visualization in the Earth Sciences
- Title:** "Collaboratively Searching for Something that Might Not Exist: Life on Mars?"
- Time:** Wednesday, 11 March 2020, 16:00 hrs.
- Venue:** K.R. Ramanathan Auditorium, PRL

Abstract

In this talk, Prof. Sumner will discuss the Mars Science Laboratory (Curiosity rover) mission and its approach to looking for evidence of ancient life on Mars. Key questions related to the past habitability of Mars at Gale Crater lead the team of scientists and engineers to specific scientific investigations that can be addressed by the technical capabilities of Curiosity. By responding to data from Curiosity, the team has demonstrated that there were ancient environments capable of hosting life and that organic molecules are present, although no evidence of past life has been found.

The Speaker

Prof. Dawn Sumner's research focuses on reconstructing ancient environments on early Earth and Mars and the early evolution of bacteria, including the origin of oxygenic photosynthesis. Her group studies everything from the environmental settings, geochemistry, and morphology of Archean microbialites to the morphology, climate response, and genomics of modern microbial communities growing in ice-covered Antarctic lakes to the stratigraphy and geochemistry of sedimentary rocks on Mars. Prof. Sumner is a member of NASA's Mars Science Laboratory (MSL), helping the rover Curiosity explore ancient environments in Gale Crater on Mars. She regularly shares her research and adventures with the public. Sumner is dedicated to helping students of all backgrounds prepare for careers in science as well as to creating educational and work environments that are inclusive and supportive, including through the use of feminist research and theory. Prof. Sumner was awarded the Career Award for Outstanding Contributions in Geosciences, Geobiology, and Microbiology from the Geological Society of America in 2016. She is an elected Fellow of the Geological Society of America (in 2014). She was also selected to deliver the honorary Carl Sagan Lecture at the American Geophysical Union (AGU). She had been the Chair of the UC Davis Department of Earth & Planetary Sciences from 2014-2016. She had also been the Chancellor's Fellow, UC Davis, during 2003-2004.

Tea at 15:30 hrs
ALL ARE WELCOME

